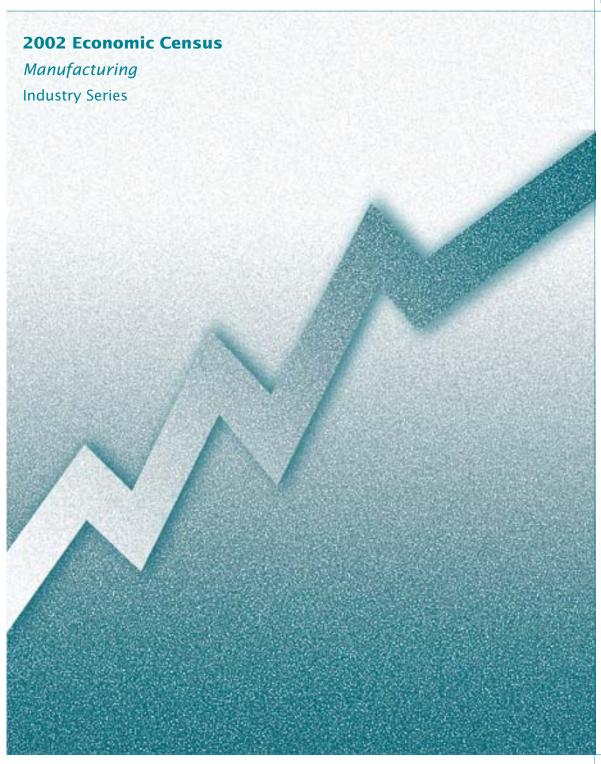
Rolling Mill Machinery and Equipment Manufacturing: 2002

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Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

		All	All employees		Production workers				Total	Total	Total capital
Industry and year ¹	Com- panies ²	estab- lish- ments ³	Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	cost of materials (\$1,000)		expendi- tures (\$1,000)
333516, Rolling mill machinery and equipment manufacturing	73 N N N N	79 N N N 100	2 735 3 025 3 145 3 094 4 290 4 149	138 435 146 191 158 046 127 447 179 144 167 312	1 755 1 774 1 573 2 334	3 476 3 586 3 867 3 421 4 711 4 720	65 040 69 195 76 103 55 314 84 534 75 166	245 058 242 707 323 019 218 117 342 157 363 586	237 956 249 911 259 070 201 058 310 221 323 460	493 676 494 048 579 250 429 691 661 702 700 084	'17 754 14 640 21 338 21 474 13 766 17 278

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area		All establishments ²		All employees		Production workers						
		Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	materials	Total value of shipments (\$1,000)	
333516, Rolling mill machinery and equipment manufacturing												
United StatesOhioPennsylvania	4	79 20 12	33 8 6	2 735 822 448	138 435 42 557 21 699	1 583 465 251	3 476 1 035 509	65 040 20 265 9 792	245 058 64 289 61 835	237 956 56 299 62 602	493 676 125 899 124 352	

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

Includes establishments with payroll at any time during the year.

Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
333516, Rolling mill machinery and equipment manufacturing	
Companies ¹ number	73
All establishments ²	79 46 25 8
All employees³ number Total compensation \$1,000 Annual payroll \$1,000 Total fringe benefits \$1,000	2 735 167 492 138 435 29 057
Production workers, average for year	1 583 1 603 1 577 1 559 1 582
Production worker hours	3 476 65 040
Total cost of materials \$1,000 Materials, parts, containers, packaging, etc., used \$1,000 Resales \$1,000 Purchased fuels \$1,000 Purchased electricity \$1,000 Contract work \$1,000	237 956 212 395 2 956 2 763 5 352 14 490
Quantity of electricity purchased for heat and power	76 965 -
Total value of shipments \$1,000. Primary products value of shipments \$1,000. Secondary products value of shipments \$1,000. Total miscellaneous receipts \$1,000. Value of resales \$1,000. Contract receipts \$1,000. Other miscellaneous receipts \$1,000.	493 676 467 316 17 357 9 003 4 084 922 3 997
Primary products specialization ratio percent. Value of primary products shipments made in all industries. \$1,000. Value of primary products shipments made in this industry \$1,000. Value of primary products shipments made in other industries \$1,000.	96 489 323 467 316 22 007
Coverage ratiopercent.	96
Value added\$1,000	245 058
Total inventories, beginning of year \$1,000. Finished goods inventories \$1,000. Work-in-process inventories \$1,000. Materials and supplies inventories \$1,000.	168 622 23 753 83 162 61 707
Total inventories, end of year	157 793 26 634 69 619 61 540
Gross value of depreciable assets (acquisition costs) at beginning of year \$1,000 Total capital expenditures (new and used) \$1,000 Buildings and other structures (new and used) \$1,000 Machinery and equipment (new and used) \$1,000 Automobiles, trucks, etc., for highway use \$1,000 Computers and peripheral data processing equipment \$1,000 All other expenditures for machinery and equipment \$1,000 Total retirements \$1,000 Gross value of depreciable assets at end of year \$1,000	'283 928 117 754 11 601 16 153 404 (998 14 851 10 905 '290 777
Depreciation charges during year	^r 18 299
Total rental payments \$1,000. Buildings and other structures \$1,000. Machinery and equipment \$1,000.	8 572 5 574 2 998
Total other expenses ⁴ \$1,000. Response coverage ratio ⁵ percent. Repair and maintenance services of buildings and/or machinery ⁴ \$1,000. Communications services ⁴ \$1,000. Legal services ⁴ \$1,000. Accounting, auditing, and bookkeeping services ⁴ \$1,000. Advertising and promotional services ⁸ \$1,000. Expensed computer hardware and supplies and purchased computer services ⁴ \$1,000. Refuse removal (including hazardous waste) services ⁴ \$1,000. Management consulting and administrative services ⁴ \$1,000. Taxes and license fees ⁴ \$1,000. All other expenses ⁴ \$1,000.	53 462 67 2 530 1 254 505 753 582 1 164 986 149 731

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.
2Includes establishments with payroll at any time during the year.
3Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.
4Based on 2002 Annual Survey of Manufactures (ASM) sample data.
5A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class		All employees			Pr	oduction worke	ers		Total	Total	Total
		All estab- lish- ments ²	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	cost of materials (\$1,000)	value of shipments (\$1,000)	capital expendi- tures (\$1,000)
333516, Rolling mill machinery and equipment manufacturing											
All establishments Establishments with — 1 to 4 employees 5 to 9 employees 10 to 19 employees 20 to 49 employees 100 to 249 employees 250 to 499 employees 250 to 499 employees 500 to 999 employees 1,000 to 2,499 employees 1,000 to 2,499 employees 2,500 employees or more	3 9 7 5 2 6 2 - -	79 21 14 11 20 5 7 1 -	2 735 51 86 139 669 326 9 e - -	138 435 2 354 4 737 6 163 28 347 15 908 D D	1 583 28 50 74 441 186 D D	3 476 52 103 153 888 413 D D	65 040 1 102 2 101 2 824 15 632 7 123 D D	245 058 2 555 8 513 10 974 46 454 46 536 D D	237 956 4 291 8 003 9 633 47 090 44 885 D D -	493 676 8 830 17 650 22 638 98 184 87 900 D D -	'17 754 '156 '896 '463 '2 902 '5 036 D D -
Administrative records ⁴	9	27	236	12 792	142	296	6 182	21 497	22 253	43 743	^r 846

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

¹Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All	All em	ployees	Production workers				Total	Total	Total capital
		estab- lish- ments ¹	Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	cost of materials (\$1,000)	value of shipments (\$1,000)	expendi- tures (\$1,000)
333516	Rolling mill machinery and equipment manufacturing	79	2 735	138 435	1 583	3 476	65 040	245 058	237 956	493 676	¹ 17 754
3335161 3335163 3335165	Hot rolling mill machinery (including combination hot and cold) (except tube rolling)	7 14	344 529	18 296 24 535	174 319	344 705	7 205 12 028	44 239 42 130	51 256 38 840	97 869 80 790	D D
	parts for all rolling mill machinery	33	1 767	91 017	1 037	2 317	43 619	154 186	141 219	301 507	r12 814

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

		Number of		Product	shipments
Product code	Product	companies with shipments of \$100,000 or more	Quantity of production for all purposes	Quantity	Value (\$1,000)
333516	Rolling mill machinery and equipment manufacturing	N N	X	X	489 323 666 294
3335161	Hot rolling mill machinery (including combination hot and cold) (except tube rolling)	N N	×	X X	133 274 181 403
33351611	Hot rolling mill machinery (including combination hot and cold) (except tube rolling)	N	×	X	133 274
3335161100	Hot rolling mill machinery (including combination hot and cold) (except tube rolling)	11 N	X X X	X X X	181 403 133 274 N
3335163	Cold rolling mill machinery	N N	X	X	71 715 95 007
33351631	1997 Cold rolling mill machinery	N N	ŝ	ŝ	71 715
3335163101	Tandem cold rolling mill machinery	N 7 6	× × × × × × × ×	X X X X X X X X X	95 007 17 729
3335163106	Single stand cold rolling mill machinery	5 5	× ×	X	20 846 36 927
3335163191	Other cold rolling mill machinery and equipment	10	ŝ	ŝ	60 056 17 059
3335163Y	Cold rolling mill machinery, nsk	7 N	× ×	X	14 105 -
3335163YWV	1997 Cold rolling mill machinery, nsk	N N N	X X X	X X X	_ _ _
3335165	Other rolling mill machinery (including tube mill machinery) and parts for all rolling mill machinery	N N	×	X	271 603
33351651	Other rolling mill machinery (including tube mill machinery) and parts for all rolling mill machinery	N N	X	X X	348 676 271 192
3335165101	Tube rolling mill machinery	N 12	X	X X	347 473 85 454
3335165106	1997 Processing lines (including pickling and cleaning, tinning,	9	X	X	76 036
	galvanizing, etc.), scarfing units, and press feed lines	11 6	X X X	X	31 080 70 311
3335165111	Other rolling mill machinery and equipment, except parts	9	X	X X X	12 645 46 134
3335165116	Machined rolls for rolling mills	12	X X X	X X	98 195 109 911
3335165121	Parts, except rolls, for rolling mill machinery (sold separately)	17	X	X	43 818
3335165Y	Other rolling mill machinery (including tube mill machinery)	15	x	x	45 081
	and parts for all rolling mill machinery, nsk	N N	X	X	411 1 203
3335165YWV	Other rolling mill machinery (including tube mill machinery) and parts for all rolling mill machinery, nsk	N N	X	X	411 1 203
333516W	Rolling mill machinery and equipment manufacturing, nsk, total	N	х	х	12 731
333516WY	Rolling mill machinery and equipment manufacturing, nsk, total	N N	X	X	41 208
333516WYWW	Rolling mill machinery and equipment manufacturing, nsk, for nonadministrative-record establishments. 2002.	N N	X X	X	12 731 41 208 1 105
333516WYWY	Rolling mill machinery and equipment manufacturing, nsk,	N N	X	X	1 105 17 858
	for administrative-record establishments	N N	X X	X	11 626 23 350

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. Product Class Shipments for Selected States: 2002 and 1997

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3335161	Hot rolling mill machinery (including combination hot and cold) (except tube rolling) United States	133 274 181 403
3335163	Cold rolling mill machinery United States	71 715 95 007 18 356 18 852
0000100	United States. 2002. Illinois. 2002. Ohio 2002. Pennsylvania 2002. 1997. 2002. 1997. 1997. 2002.	271 603 348 676 18 315 16 186 68 499 151 135 59 013 N

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
333516	Rolling mill machinery and equipment manufacturing		
00900001	Total materials	×	212 395 298 183
33399601	Fluid power pumps, motors, and hydrostatic transmissions (hydraulic and pneumatic)	X X X X	4 281 9 322
33399501	Fluid power cylinders and rotary actuators (hydraulic and pneumatic)	X X	9 322 D 7 715
33399901	Fluid power filters (hydraulic and pneumatic)	X	724 1 735
33291203	Fluid power hose and tube fittings and assemblies (hydraulic and pneumatic)	X	2 089 3 733
33291207	Fluid power valves (hydraulic and pneumatic)	x x x x x	2 430 3 471
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products	×	440 4 345
33200051	Other fabricated metal products (excluding fluid power products and forgings)	\$	18 030 N
33210000	Forgings	× × × × ×	D N
33151001	Iron and steel castings (rough and semifinished)	×	11 713 12 706
33152011	Nonferrous (aluminum, copper, etc.) castings (rough and semifinished)	x x	D 1 349
33120007	Steel bars, bar shapes, and plate (excluding castings, forgings, and fabricated metal products)	× × × × ×	15 319 23 947
33120016	Steel sheet and strip (including tinplate)	X	1 347
33120069	Steel structural shapes (excluding castings, forgings, and fabricated metal products)	X	N 2 121
33120092	All other steel shapes and forms (excluding castings, forgings, and fabricated metal products)	X X X X X	3 370 1 788
331000AJ	Nonferrous metal shapes and forms (excluding castings, forgings, and fabricated metal		N
	products)	X	40 104
33531209	Fractional horsepower electric timing motors, synchronous and subsynchronous (less than 1 hp)	X	125
33531217	Other fractional horsepower electric motors (less than 1 hp)	X X X	143 D D
33531221	Integral horsepower electric motors and generators (1 hp or more)	×	D 12 328
001900B1	Electrical transmission, distribution, and control equipment	\$	D 11 868
33500007	Electrical industrial capacitors, resistors, rheostats, and coil windings	× × × × ×	3 399
33451501	Electrical instrument mechanisms and meter movements (including instrument relays)	x	36
33531409	Numerical controls for metalworking machinery (excluding programmable)	\$	N 31 D
33531411	Programmable controllers for metalworking machinery	X X X X X	3 281 5 129
33299105	Ball bearings (mounted or unmounted)	X	D 9 582
33299103	Roller bearings (mounted or unmounted)	X X X X	D 5 694
33361200	Mechanical speed changers, gears, and industrial high-speed drives	x X	11 962 16 252
32192001	Wood boxes, pallets, skids, and containers	×	759
33351503	Cutting tools for machine tools	X X X	1 076 2 104 2 273
001900C4	Printed circuit assemblies, loaded boards, and modules (printed circuit boards with inserted electronic components)	X X	D
33441300	1997 Semiconductors (including transistors, diodes, rectifiers, and integrated circuits), for electronic	X	N
35111300	circuitry	X	D N
001900D3	All other miscellaneous components and accessories, for electronic circuitry (excluding tubes)	X X X X	D N
32220017	Paper and paperboard containers (including shipping sacks and other paper packaging supplies)	X X	50 N
32610007	Fabricated plastics products (excluding gaskets, hoses, and belting)		D
33422001	Electronic communication equipment.	X	N D
00970099	All other materials and components, parts, containers, and supplies	X	N 54 421
00971000	Materials, ingredients, containers, and supplies, nsk	x x x x x x	132 902 14 626 23 481

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.